cultured with Basal Medium until the confluence, then the cells were trypsinized and divided in 3 groups. The first one was used to perform RT Real-Time PCR for CD44, CD105; CD73, CD90 and STRO-1. The second group was cultured with Osteogenic Medium for 3 weeks. The third one was used to set up a pellet culture with chondrogenic medium and cultured for 3 weeks. After 3 weeks of culture with osteogenic medium or chondrogenic medium the samples were retrieved. Alizarin Red Staining and RT Real-Time PCR for Osteocalcin and Osteopontin were used to establish the osteoblast differentiation potential. Alcian Blue, Toluine Blue and Safranin O staining and RT Real-Time PCR for Agrecan, Collagen I, Collagen II, Collagen X and Sox 9 assess the chondrogenic differentiation potential. The described method was effective to isolate distinct subpopulations which present different gene expression profile relative to the stem cell markers studied. The expression of osteogenic and chondrogenic markers showed that these subpopulations exhibit significantly different differentiation potentials.

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**(OP 173) Isolation of Adipose Stem Cells (ASCs) Subpopulations with Distinct Differentiation Potential**

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ASCs are becoming the elected cells for TE applications because ASCs have been easily isolated and have shown good differentiation potential. The aim of this work was to isolate the ASCs using immunomagnetic beads coated with different antibodies (Ab) markers and to test the differentiation potential of the different subpopulations isolated. The Ab used were CD29, CD44, CD49d, CD73, CD105, STRO-1 and NGFr (p75). Once isolated, the cells were